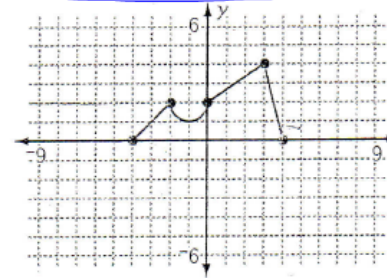


Transformation Review 2 - Solutions

1. Suppose the function pictured is $f(x)$.

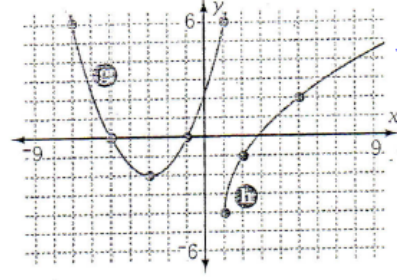
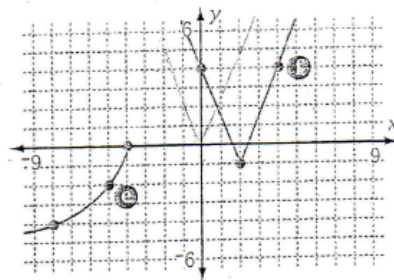
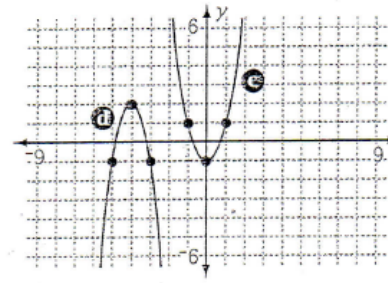
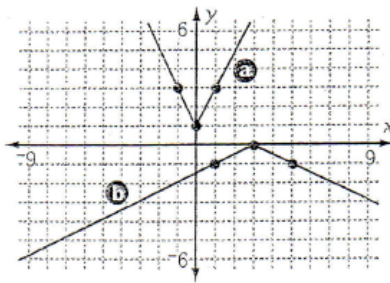
- $f(3) = -?$ - 4
- $f(-2) = -?$ - 2
- When is $f(x) = 0$? $x = -4 \sim 4$
- When is $f(x) = 2$? $x = -2, 0, 3.5$
- What is the range, R_f , of f ? $[0, 4]$
- What is the domain, D_f , of f ? $[-4, 4]$



2. Using the graph in Problem 1 as function f , carefully sketch a separate graph of each transformation.

- $f(x) - 3$ See
- $f(x - 3)$ Next
- $-f(x)$ Pages
- $2f(x) - 3$
- $f(-x)$
- $f\left(\frac{x}{2}\right)$

3. Use what you know about translations and stretches to write an equation for each graph a-h. Then check your answer by graphing each equation on your calculator.



a) $2|x| + 1$

b) $-\frac{1}{2}|x-3|$

c) $2x^2 - 1$

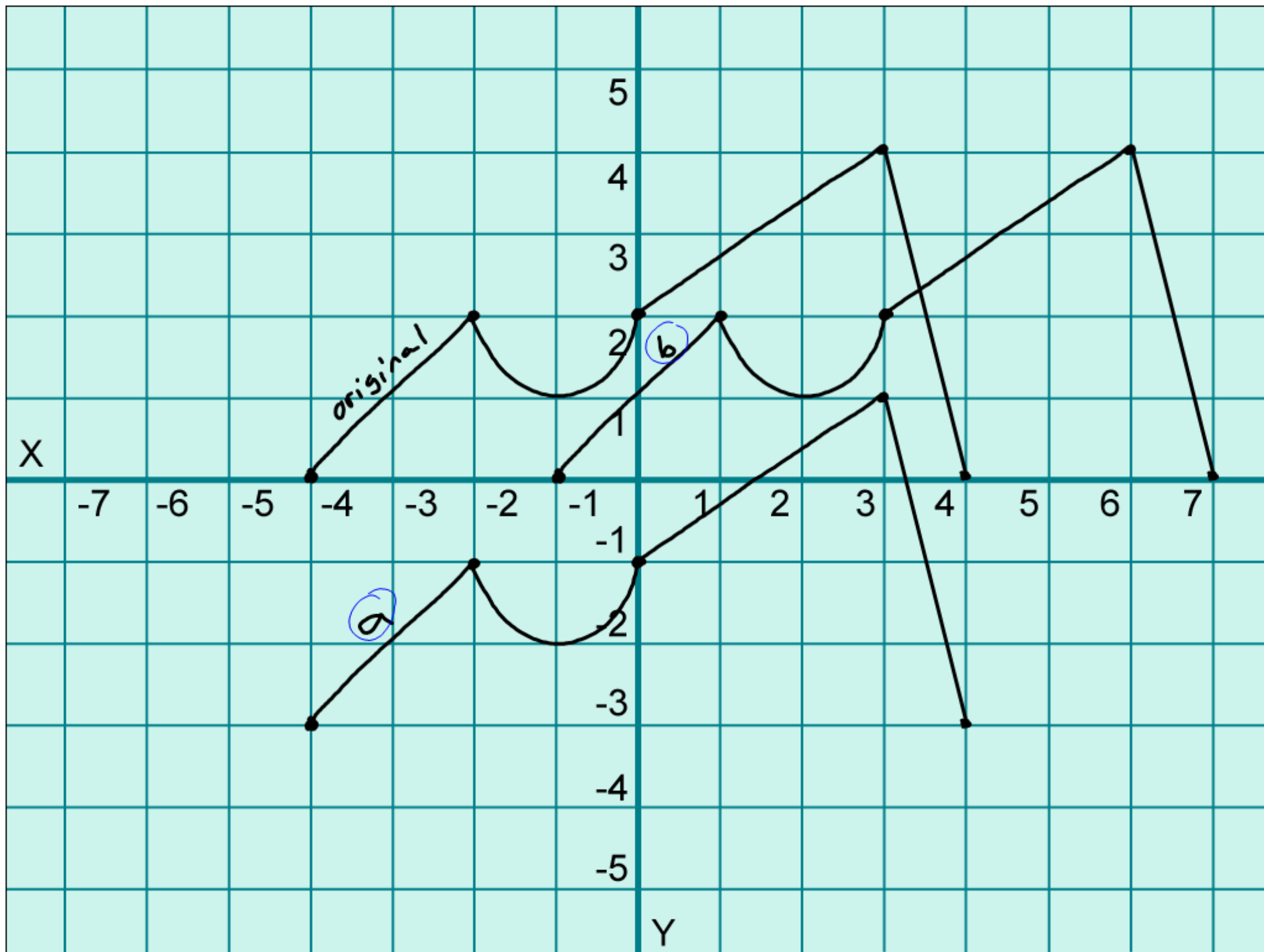
d) $-3(x+4) + 2$

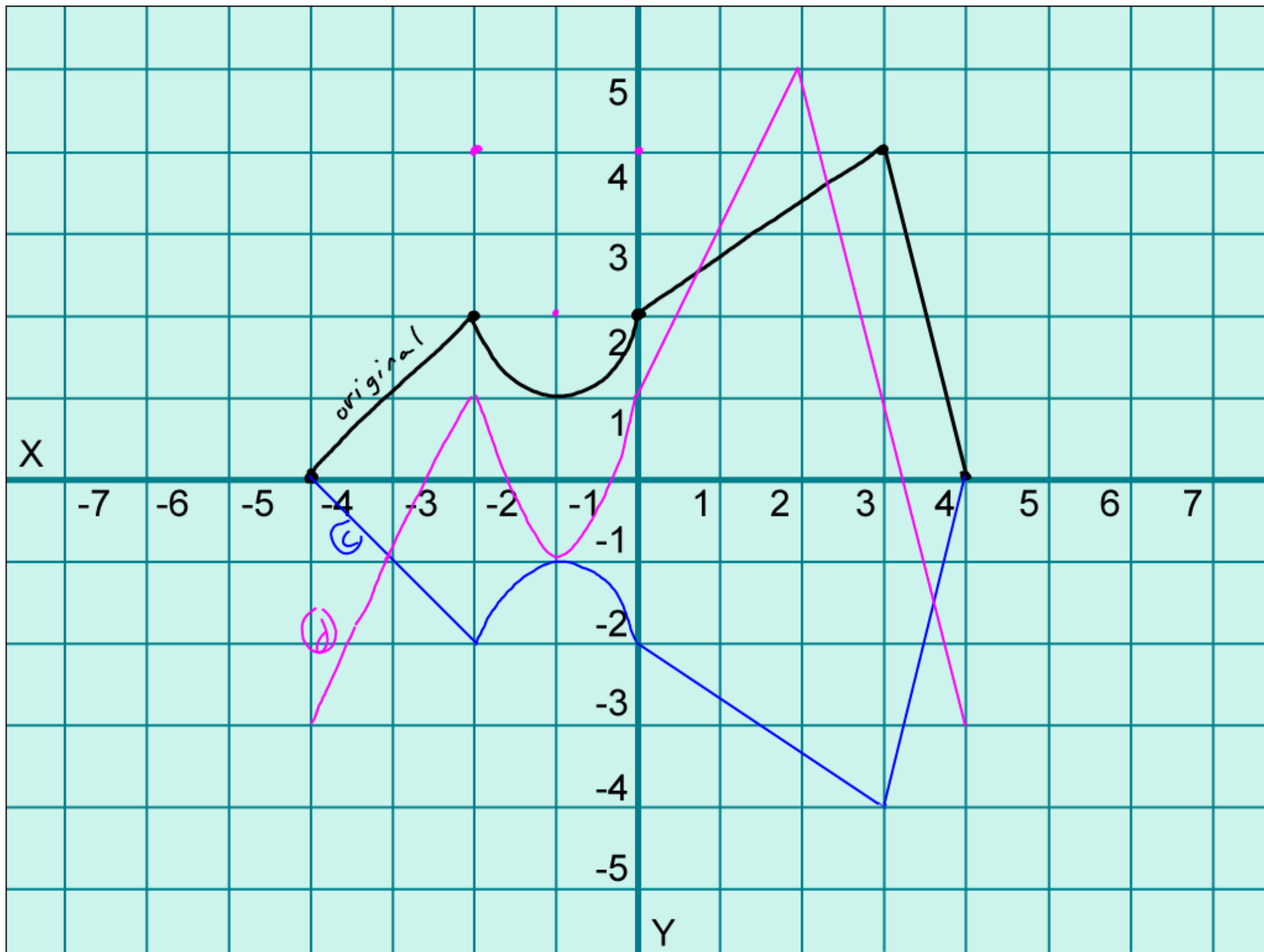
e) $2\sqrt{-(x+4)}$

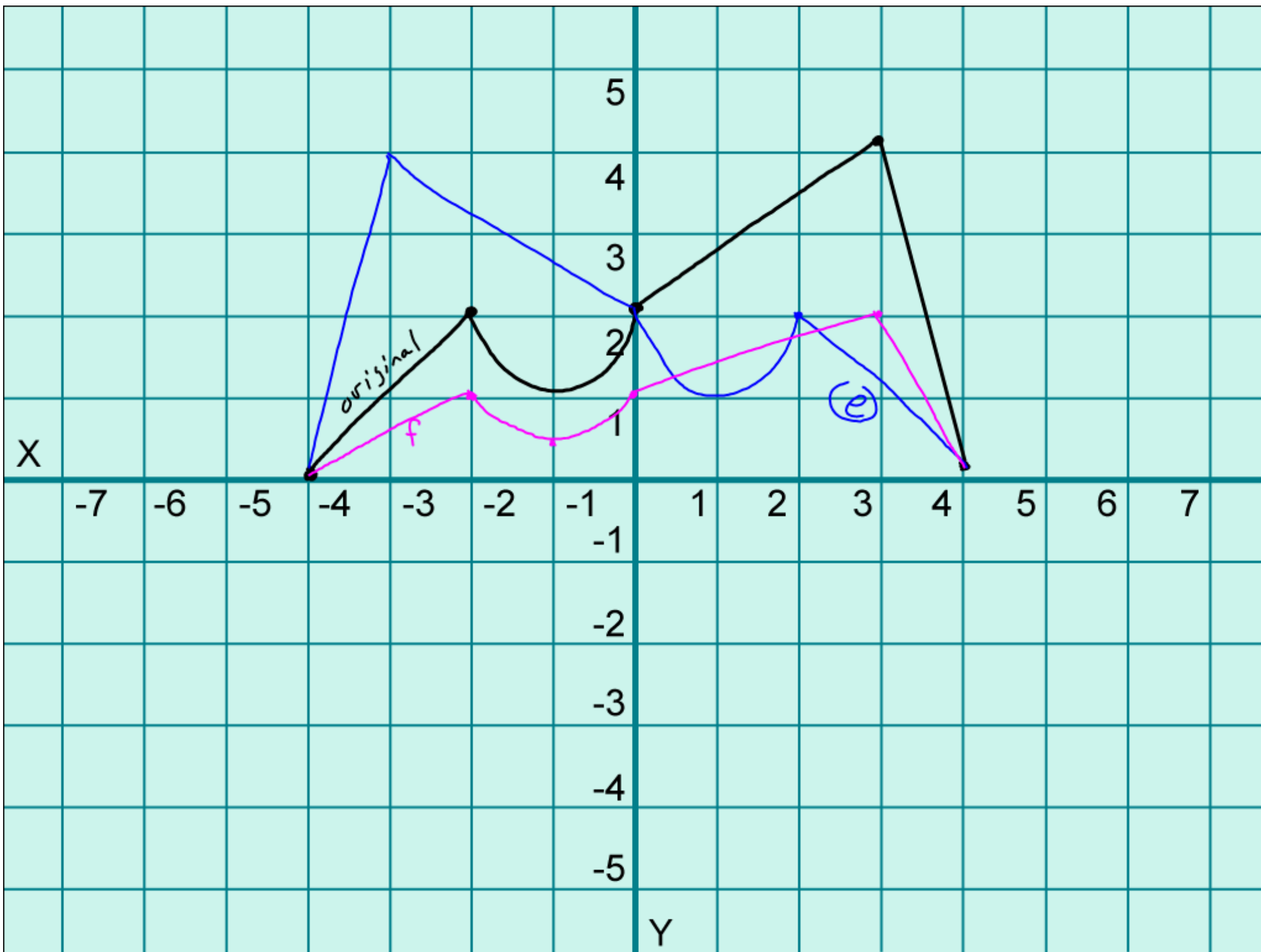
f) $2.5|x-2| - 1$

g) $\frac{1}{2}(x+3)^2 - 2$

h) $3\sqrt{x-1} - 4$







For each graph, name the parent function and write an equation of the graph.

